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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

Daisuke Sakiyama et al.

Application No.: 10/775,080

Filed: February 11, 2004

For: DATA OUTPUT APPARATUS



Group Art Unit: 2181

Examiner: Chun Kuan Lee

Appeal No.: \_\_\_\_\_

APPEAL BRIEF

Mail Stop APPEAL BRIEF - PATENTS

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

This appeal is from the decision of the Primary Examiner dated July 10, 2008 finally rejecting claims 1-17, which are reproduced as the Claims Appendix of this brief.

- ☐ A check covering the ☐ \$ 270 ☐ \$ 540 Government fee is filed herewith.
- ☒ Charge ☐ \$ 270 ☒ \$ 540 to Credit Card. Form PTO-2038 is attached.

The Commissioner is hereby authorized to charge any appropriate fees under 37 C.F.R. §§1.16, 1.17, and 1.21 that may be required by this paper, and to credit any overpayment, to Deposit Account No. 02-4800.

03/05/2009 AWOHDAF1 00000050 10775380

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I. Real Party in Interest

Konica Minolta Business Technologies, Inc. is the real party in interest, and is the assignee of Application No. 10/775,080.

II. Related Appeals and Interferences

The Appellant's legal representative, or assignee, does not know of any other appeal or interference that will affect or be directly affected by or have bearing on the Board's decision in the pending appeal.

III. Status of Claims

A. There are 17 total claims currently pending in the application.

B. Current status of the claims

1. Claims canceled: None
2. Claims withdrawn from consideration but not canceled: None
3. Claims pending: 1-17
4. Claims allowed: None
5. Claims rejected: 1-17
6. Claims on appeal: 1-17

IV. Status of Amendments

No Amendments were filed subsequent to the final Office Action dated May 22, 2008.

V. Summary Claimed Subject Matter

The claimed embodiments are directed to a multi-function peripheral (MFP) that includes a document reader 2 that reads original documents, and a printer unit 3 that prints image data onto paper or other medium (pgphs [0040], [0041]). The MFP also includes a work memory 5 that stores image data received from the document reader 2, and an expansion memory mounting unit 12 that enables an expansion

memory 14 to be mounted (pgph [0046], [0047]). The expansion memory 14 includes a file memory 6 and a compression/decompression controller 7 (pgph [0049]). The compression/decompression controller 7 includes compression/decompression units 71-74 that process data forwarded from the work memory 5 (pgph [0050]). The file memory 6 stores the image data compressed by the compression/decompression units 71-74 (pgph [0051]). An expansion memory detection unit 13 detects whether a file memory 6 is mounted to the expansion memory mounting unit (pgph [0052]).

When a file memory 6 is mounted, image data stored in the work memory is forwarded to the compression/decompression controller 7 and stored in the file memory 6. When more than one copy of image data is to be output, the compressed data stored in the file memory is decompressed, sent to the work memory 5, and output to the printer unit 3. See pgphs [0062]-[0066].

When a file memory 6 is not mounted and more than one copy of image data is to be output, the image data is stored in the work memory 5 and output to the printer unit 3 upon execution of a print session. Thus, when the file memory 6 is not mounted the image data does not undergo compression/decompression processing. See pgphs [0067]-[0070].

The table that follows maps Appellant's independent claims to those portions of the disclosure that support the recited feature.

| Claim # | Claim element                                                                                                                                                                | Support                                   |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Claim 1 | A data output apparatus, comprising:<br><br>a processing memory that processes input job image data for a job;                                                               | pgph [0047];<br>Fig. 1 element 5          |
|         | an output unit that, after processing of the input job image data sent to said processing memory, outputs said processed input job image data during a first output session; | pgph [0041], [0043];<br>Fig. 1, element 3 |
|         | a mounting unit for mounting an expansion memory used for image data storage;                                                                                                | pgph [0048];                              |
|         | a detection unit that detects whether or not the expansion memory is mounted to said mounting unit; and                                                                      | pgph [0052];<br>Fig. 1, element 13        |

| Claim #  | Claim element                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Support                                                                 |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| Claim 1  | a controller that, when said input job image data is to be output multiple times and, (i) if the expansion memory is mounted, stores the processed input job image data in a first storage destination memory for a second output session and beyond, and (ii) if the expansion memory is not mounted, stores the input job image data that is not processed in a second storage destination memory for a second output session and beyond.                                                      | pgphs [0050],[0063]-[0066], [0068]-[0070];<br>Fig. 1, elements 7, 71-74 |
| Claim 8  | A printer, comprising:<br>a receiving unit that receives print jobs of input image data;                                                                                                                                                                                                                                                                                                                                                                                                         | pgph [0044];<br>Figure 1, element 4                                     |
|          | a processing memory that processes the input image data of print jobs received by said receiving unit;                                                                                                                                                                                                                                                                                                                                                                                           | pgph [0047];<br>Fig. 1 element 5                                        |
|          | a printer unit that prints the input image data after it has been processed in said processing memory;                                                                                                                                                                                                                                                                                                                                                                                           | pgph [0041], [0043];<br>Fig. 1, element 3                               |
|          | a mounting unit used for mounting an expansion memory for image data storage;                                                                                                                                                                                                                                                                                                                                                                                                                    | pgph [0048];                                                            |
|          | a detection unit that detects whether the expansion memory is mounted to said mounting unit; and                                                                                                                                                                                                                                                                                                                                                                                                 | pgph [0052];<br>Fig. 1, element 13                                      |
|          | a controller that, when the print job includes multiple copies of identical images to be printed, (i) selects one of a first and second storage destination memories for storing the input image data that is not processed or processed image data of the second output session and beyond based on the detection of said detection unit, and (ii) reads out said image data from the selected storage destination memory and executes printing for a second copy onward via said printer unit. | pgphs [0050],[0063]-[0066], [0068]-[0070];<br>Fig. 1, elements 7, 71-74 |
| Claim 14 | A printer comprising:<br>a receiving unit that receives print jobs of input image data;                                                                                                                                                                                                                                                                                                                                                                                                          | pgph [0044];<br>Figure 1, element 4                                     |
|          | a work memory that includes a storage area used for storing input image data for received print jobs, as well as a processing area used for converting the input image data to raster images;                                                                                                                                                                                                                                                                                                    | pgph [0047];<br>Fig. 1 element 5                                        |

| Claim #  | Claim element                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Support                                                                     |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| Claim 14 | a printer unit that prints image data after it has been processed in said processing area;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | pgph [0041], [0043];<br>Fig. 1, element 3                                   |
|          | a mounting unit used for mounting an expansion memory for data storage;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | pgph [0048];                                                                |
|          | a detection unit that detects whether an expansion memory is mounted to said mounting unit; and                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | pgph [0052];<br>Fig. 1, element 13                                          |
|          | a controller that, where the print job is a job in which multiple copies of identical images are to be printed, (i) and when said detection unit detects that an expansion memory is mounted, prints out a first copy of the processed image data processed in said work memory and stores the processed image data stored in said work memory in said expansion memory and executes printing for a second copy onward via the printer unit using the processed input image data stored in said expansion memory, and (ii) when said detection unit detects that an expansion memory is not mounted, executes printing for the second copy onward via the printer unit using the input image data that is not processed and is stored in said work memory. | pgphs [0050],[0063]-<br>[0066], [0068]-[0070];<br>Fig. 1, elements 7, 71-74 |

#### VI. Grounds of Rejection to be Reviewed on Appeal

The claims on appeal are rejected in the final Office Action as follows:

Claims 1-17 are rejected under 35 U.S.C. §103(a) for alleged unpatentability over *Utsunomiya* (U.S. Patent No. 6,999,186) in view of *Kizaki* (U.S. Patent Publication No. 2003/0035142) and further in view of *Terajima* (U.S. Patent No. 5,309,251)

VII. Argument

**Claims 1, 8, and 14 are patentable over the applied documents**

When issuing a rejection under 35 U.S.C. §103, the Office has the initial burden of establishing a **factual basis** to support the legal conclusion of obviousness. *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). For rejections under 35 U.S.C. § 103(a) based upon a combination of prior art elements, in *KSR Int'l v. Teleflex Inc.*, 127 S.Ct. 1727, 1741, 82 USPQ2d 1385, 1396 (2007), the Supreme Court stated that "a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art." "Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some **articulated reasoning with some rational underpinning** to support the legal conclusion of obviousness." *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006) (emphasis added).

Based in part on the evidentiary burden established by the Federal Circuit, Appellant respectfully submits that the combination of *Utsunomiya*, *Terajima*, and *Kizaki* cannot reasonably be interpreted to establish a *prima facie* case of obviousness. Particularly, Appellant respectfully submits that modifying the primary reference *Utsunomiya* with at least the teachings of the secondary reference *Terajima*, as proposed by the Examiner, would destroy the operability of the former.

*Utsunomiya* discloses a system in which image data for each input image is first stored in an input/output buffer 1032. The data stored in buffer 1032 is rasterized and then stored in a rasterized image storage area 3008. Both the buffer

1032 and image storage area 3008 are contained within the same device RAM 1037.

See Utsunomiya, Figure 3 and col. 5, line 58 through col. 6, line 32. *Utsunomiya* further discloses an external memory 1043 is used when the buffer 1032 and/or storage area 3008 are full. See Id., col. 6, lines 33-44. Moreover, the external memory 1043 is used to store print data and various kinds of information of the printing apparatus including font data, form data, and data and control codes received from the host, among other information. See Id., col. 5, lines 5-14. The external memory also often stores a program that is loaded onto the RAM 1037 and is executed by a CPU 1035. See Id., col. 5, lines 15-16.

*Terajima* discloses a facsimile apparatus that enables an external memory 109 to be detachably loaded. When a sensor 119 detects that the external memory is loaded, a communication result is stored in the external memory. Alternatively, when the sensor does not detect the external memory, the communication result is stored in a RAM 115 of the main body.

On page 3 of the final Office Action dated July 10, 2008, the PTO alleges that the combination of *Utsunomiya* and *Terajima* discloses Appellant's claimed detection unit that detects whether or not the expansion memory is mounted to a mounting unit, and a controller that stores image data based on the detection. As discussed above, however, because the external memory of *Utsunomiya* stores various kinds of information of the printing apparatus, there appears to be no scenario or circumstance in which the apparatus of *Utsunomiya* could be configured without the external memory 1043. In particular, *Utsunomiya* discloses that during either of a first or second method for printing plural copies, most of the print data is stored on the hard disk (3011, 3012). Thus, when printing multiple copies the system



described by *Utsunomiya* is seemingly configured to store most of the data to be printed on the hard disk. This infers that if the hard disk was not provided the printing of multiple copies would not be possible due to insufficient memory. In other words, *Utsunomiya* discloses a printing apparatus in which the external memory 1043 is necessary for successfully executing even the most general printing operations or print output. For this reason, Appellant believes that no rational basis exists that would lead one of ordinary skill to combine the teachings of *Utsunomiya* and *Terajima* as hypothesized in the final Office Action to achieve the claimed results.

On page 2 of the Advisory Action dated January 2, 2009, the PTO argues:

Utsunomiya teaches a printing apparatus that stores print data in an external memory, wherein said external memory include (sic) various kind (sic) of data needed for system operation. Terajima teaches sensing whether or not an external memory is connected, wherein when the external memory is connected, data is stored and printed from the external memory.

Here again the PTO asserts what each reference allegedly teaches, but does not provide a rational basis as to why one of ordinary skill would modify *Utsunomiya* to include the concept disclosed by *Terajima*. Even assuming *arguendo* that it is reasonably foreseeable that one of ordinary skill would have combined the teachings of these two references as alleged, Appellant respectfully submits that the proposed modification of *Utsunomiya* would change the principal operation of the disclosed device and likely render the modified device unsatisfactory for its intended purpose. Namely, to detect whether an external memory is mounted infers that there are instances when the external memory is not mounted. As discussed above, the external memory 1043 of *Utsunomiya* stores print data and various kinds of information of the printing apparatus including font data, form data, and data and

control codes. Thus, one of ordinary skill can reasonably conclude that for the device of *Utsunomiya* to successfully execute any printing operation or generate a print output, the external memory must be mounted. Stated differently, it appears that *Utsunomiya* cannot satisfactorily produce an output if the external memory 1043 is not mounted. Hence, because there does not appear to be an instance where the system of *Utsunomiya* can operate without the external memory being mounted, there would be no need to detect whether the external memory is mounted as allegedly disclosed by *Terajima*.

*Kizaki* is applied for its alleged disclosure of a technique in which a first copy of image data is printed from data stored in a primary memory device and a second and subsequent copies being printed using data stored in a secondary memory device. While Appellant does not acquiesce to the interpretation of *Kizaki* as alleged, Appellant respectfully submits that *Kizaki* does not remedy the deficiencies of *Utsunomiya* and *Terajima* with respect to Appellant's claimed detection unit and controller as discussed above.

In summary, *Utsunomiya*, *Kizaki*, and *Terajima* when applied individually or collectively fail to establish a *prima facie* case of obviousness, because not all features of Appellant's claims are disclosed. Fittingly, Appellant respectfully requests that this rejection not be sustained.

**Claims 2-7, 9-13, and 15-17 are distinguishable over the applied documents**

The aforementioned claims depend from one of independent claims 1, 14, and 31. By virtue of these dependencies and because of the additional features recited therein, Appellant respectfully submits that *Utsunomiya*, *Kizaki*, and *Terajima* fail to establish a *prima facie* case of obviousness with respect to claims 2-7, 9-13,

and 15-17. Accordingly, Appellant respectfully requests that this rejection not be sustained.

VIII. Claims Appendix

See attached Claims Appendix for a copy of the claims involved in the appeal.

IX. Evidence Appendix

No evidentiary exhibits are provided with this Appeal.

X. Related Proceedings Appendix

No related proceedings are associated with this Appeal.

XI. Conclusion

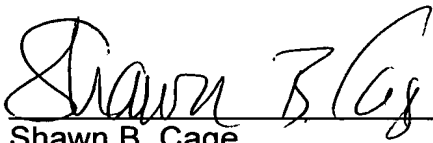
Appellant has pointed to errors in the rejection of the claims. Appellant respectfully requests that the final rejection be reversed and the application be returned to the Examiner for prompt allowance.

Respectfully submitted,

BUCHANAN INGERSOLL & ROONEY PC

Date March 5, 2009

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## VIII. CLAIMS APPENDIX

### The Appealed Claims

1. (Previously Presented) A data output apparatus, comprising:
  - a processing memory that processes input job image data for a job;
  - an output unit that, after processing of the input job image data sent to said processing memory, outputs said processed input job image data during a first output session;
  - a mounting unit for mounting an expansion memory used for image data storage;
  - a detection unit that detects whether or not the expansion memory is mounted to said mounting unit; and
  - a controller that, when said input job image data is to be output multiple times and, (i) if the expansion memory is mounted, stores the processed input job image data in a first storage destination memory for a second output session and beyond, and (ii) if the expansion memory is not mounted, stores the input job image data that is not processed in a second storage destination memory for a second output session and beyond.
  
2. (Previously Presented) The data output apparatus according to Claim 1, wherein when said detection unit detects that the expansion memory is mounted, said controller stores the processed input job image data used for said second output session onward in said expansion memory, and when said detection unit detects that the expansion memory is not mounted, said controller stores the input job image data used for said second output session onward in said processing memory.

3. (Previously Presented) The data output apparatus according to Claim 2, wherein if it is detected by said detection unit that the expansion memory is mounted, said controller outputs the input job image data processed in said processing memory as is for the first output session.

4. (Previously Presented) The data output apparatus according to Claim 1, wherein said controller determines the storage format for the input job image data used for the second output session onward in accordance with the results of the detection by said detection unit.

5. (Previously Presented) The data output apparatus according to Claim 4, wherein the job is a print job sent from an external device, and when the mounting of an expansion memory is detected by said detection unit, said controller stores the processed input job image data in said expansion memory as image data resulting from processing in said processing memory, and when the mounting of an expansion memory is not detected by the detection unit, said controller stores the input job image data in said processing memory in an original format existing prior to its processing in said processing memory.

6. (Previously Presented) The data output apparatus according to Claim 1, further comprising at least one compression/decompression unit that compresses data and decompresses compressed data.

7. (Previously Presented) The data output apparatus according to Claim 6, wherein said expansion memory stores data compressed by said at least one compression/decompression unit.

8. (Previously Presented) A printer, comprising:

- a receiving unit that receives print jobs of input image data;
- a processing memory that processes the input image data of print jobs received by said receiving unit;
- a printer unit that prints the input image data after it has been processed in said processing memory;
- a mounting unit used for mounting an expansion memory for image data storage;
- a detection unit that detects whether the expansion memory is mounted to said mounting unit; and
- a controller that, when the print job includes multiple copies of identical images to be printed, (i) selects one of a first and second storage destination memories for storing the input image data that is not processed or processed image data of the second output session and beyond based on the detection of said detection unit, and (ii) reads out said image data from the selected storage destination memory and executes printing for a second copy onward via said printer unit.

9. (Previously Presented) The printer according to Claim 8, wherein when said detection unit detects that the expansion memory is mounted, said controller stores the processed input image data used for printing of a second copy onward in said expansion memory, and when said detection unit detects that an expansion memory is not mounted, said controller stores the input image data that is not processed and used for printing of the second copy onward in said processing memory.

10. (Previously Presented) The printer according to Claim 9, wherein if it is detected by said detection unit that the expansion memory is mounted, said controller prints out a first copy using the image data processed in said processing memory.

11. (Previously Presented) The printer according to Claim 8, wherein said controller determines a storage format for image data used for the second copy onward in accordance with the results of the detection by said detection unit.

12. (Previously Presented) The printer according to Claim 8, further comprising at least one compression/decompression unit that compresses image data and decompresses compressed data.

13. (Previously Presented) The printer according to Claim 12, wherein said expansion memory stores data compressed by said at least one compression/decompression unit.

14. (Previously Presented) A printer comprising:

a receiving unit that receives print jobs of input image data;

a work memory that includes a storage area used for storing input image data for received print jobs, as well as a processing area used for converting the input image data to raster images;

a printer unit that prints image data after it has been processed in said processing area;

a mounting unit used for mounting an expansion memory for data storage;

a detection unit that detects whether an expansion memory is mounted to said mounting unit; and

a controller that, where the print job is a job in which multiple copies of identical images are to be printed, (i) and when said detection unit detects that an expansion memory is mounted, prints out a first copy of the processed image data processed in said work memory and stores the processed image data stored in said work memory in said expansion memory and executes printing for a second copy onward via the printer unit using the processed input image data stored in said expansion memory, and (ii) when said detection unit detects that an expansion memory is not mounted, executes printing for the second copy onward via the printer unit using the input image data that is not processed and is stored in said work memory.



15. (Previously Presented) The printer according to Claim 14, further comprising at least one compression/decompression unit that compress image data input from said processing area, decompress compressed image data and output decompressed image data to said processing area.

16. (Previously Presented) The printer according to Claim 15, wherein said expansion memory stores image data compressed by said at least one compression/decompression unit.

17. (Previously Presented) The printer according to claim 8, wherein the processing memory is the first storage destination and the expansion memory is the second storage destination memory.

## **IX. EVIDENCE APPENDIX**

**None**

## **X. RELATED PROCEEDINGS APPENDIX**

None